

Remarks

Claims 1-12 and 24-30 are presently at issue in this pending patent application. Reconsideration of the pending Claims and allowance is respectfully requested in view of the following comments.

The Election/Restriction

Invention I and Invention II have been identified in the office action. Invention I includes claims 1-12 and 24-30 and is classified in class 345, subclass 400. Invention II includes claims 13-23 and claims 31-37 and is classified in class 345 subclass 802.

Applicants hereby affirms the election of Invention I, claims 1-12 and 24-30.

The 35 U.S.C. 102(b) Claim Rejections

Pending Claims 1, 12 and 24-30 stand rejected pursuant to 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,949,968 to Gentile et al. (hereinafter "Gentile"). Applicants respectfully traverse these rejections for at least the following reasons.

A. Claims 1 and 12

Claim 1 discloses, in a computer comprising a display, a method for displaying data element indicia representative of a plurality of data elements interrelated by a plurality of relationships. The data elements comprise a plurality of data types, and each indicium of the data element indicia has a corresponding data type. The method comprises displaying region indicia representative of a plurality of regions on the display, wherein each region of the plurality of regions corresponds to one of the plurality of data types. In addition, the method comprises displaying the data element indicia according to the regions, wherein each indicium of the data element indicia is displayed in a region of the plurality of regions according to the corresponding data type.

Gentile teaches a system for processing data representative of a page for output to a visual-output device. The system may include a visual information source, such as a computer, outputting data to an output-data generator (Fig. 1).

The output-data generator processes the data to drive the visual-output device such as a printer or a raster display device. (Col. 4 lines 33-45) The data is processed with compression techniques to reduce the amount of random access memory needed by the printer or display. (Col. 6 lines 19-26) Two or three-dimensional representations, such as a page representation is divided into regions either in advance or dynamically. (Col. 4 lines 50-54, Col. 5 lines 57-64) Raster data that is created for each region is compressed and stored until needed. (Col. 6 lines 29-34) The regions may be fixed parallel bands or bounding boxes of almost any shape. (Col. 6 lines 2-5 and Col. 7 lines 36-43)

Text, image and graphic objects defined by commands, such as post script commands, are generated by the visual information source and processed by the output-data generator. (Col. 5 lines 5-10 and Col. 6 lines 53-58) The commands define where the objects will be displayed and also identify fonts, character size, colors, fills, strokes etc depending on whether the object is text, image or graphic. (Col. 6 lines 58-65) Each of the objects also include a representation type or data type that describes the object as text, graphic or image objects (Col. 2 lines 26-38, Col. 7 lines 24-26)

When the regions are formed dynamically, the representation types of the objects may be used to define regions that are referred to as region bounding boxes. (Col. 5 lines 63-67, Col. 6 lines 1-2, Col. 7 lines 36-47) Alternatively, when the regions are fixed, primitive elements may be generated for that portion of an object within a region. (Col. 7 lines 9-11) The primitive elements are portions of the object that are each defined as text, graphics or images (Col. 7 lines 11-18) When an object is in multiple regions, or has multiple data types associated therewith, the region may be subdivided into non-intersecting bounding boxes or subregions based on the datatype of the objects therein. (Col. 7 lines 36-47 and Col. 8 lines 37-42) Thus, the objects, or portions of objects within a bounding box may be compressed with different algorithms depending on the data type. (Col. 8 lines 28-33) When desired, the objects may be decompressed and printed or displayed to recreate the two or three-dimensional image.

Claim 1 on the other hand, describes displaying region indicia representative of a plurality of regions on a display. The term indicia is defined as "distinctive marks: Indications." Websters Ninth Collegiate Dictionary, Merriam-Webster Inc., 1990. In contradistinction, Gentile determines regions for purposes of compressing a page representation and then decompressing the page representation to display the page representation with a printer or a display. Accordingly, Gentile does not teach, suggest or disclose displaying region indicia representative of a region as disclosed by Claim 1, but instead teaches display of a page representation.

In Item 9 of the office action mailed March 19, 2004 it is asserted that elements 38, 42 and 46 in Fig. 2 of Gentile are region indicia. Applicants respectfully disagree since element 38 is described as a "text subheading", element 42 is described as a "graphics subheading" and element 46 is described as an "image subheading." (Col. 5 lines 64-67 and Col. 6 lines 1-2) Gentile further teaches that each of elements 38, 42 and 46, are included as objects in a page representation. (Col 5 lines 29-31) Clearly, Gentile teaches that objects, such as elements 38, 42 and 46 in a page representation are not regions but are instead objects defined by descriptive command(s) that are compressed to save memory storage space and then decompressed for visual display. (Col. 5 lines 8-9 and Col. 6 lines 22-26)

In Fig. 2 of Gentile, elements 38, 42 and 46 are identified as "Text", "Graphics" and "Images" to simply illustrate that these objects within the page representation have been identified as different types of objects. (Col. 5 lines 24-25) In other words, Gentile does not teach, suggest or disclose that either the regions taught by Gentile, nor region indicia are displayed on a display. In fact, any discussion with regard to displaying on a display region indicia representative of Gentile's regions is entirely absent from the teachings of Gentile.

Claim 1 also includes the step of displaying data element indicia according to a plurality of regions. However, Gentile teaches only the display of the actual data, not data element indicia as disclosed by Claim 1. It was asserted in the office action mailed March 19, 2004 that data objects in the

abstract correspond to data element indicia. Applicants respectfully traverse this assertion since Gentile clearly teaches that the data objects are the actual data (text, graphics and image representations) included in a page representation. (Col. 5 lines 44-45) In addition, Gentile teaches that it is the data objects themselves, not data object indicia, that are being compressed, decompressed and visually displayed. In fact, if one assumes for purpose of argument that the data objects of Gentile are data element indicia, which they clearly are not, it is immediately apparent that a plurality of data elements that are represented by the data element indicia are completely absent from the teachings of Gentile.

Accordingly, for at least the foregoing reasons, independent Claim 1 is patentably distinct over Gentile. Dependent Claim 12 depends from Claim 1, and is therefore also patentable over Gentile for at least the same reasons. Applicants therefore respectfully request the Examiner to withdraw the 35 U.S.C. 102(b) rejection of Claims 1 and 12.

B. Claim 24

Claim 24 discloses an apparatus for displaying data element indicia representative of a plurality of data elements interrelated by a plurality of relationships. The data elements comprise a plurality of data types and each indicium of the data element indicia has a corresponding data type. The apparatus includes a display, at least one processor coupled to the display and at least one memory device coupled to the processor. Executable instructions are stored on the memory device that, when executed by the processor, cause the processor to display region indicia representative of a plurality of regions on the display. Each region of the plurality of regions corresponds to one of the data types. The executable instructions also cause the processor to display the data element indicia according to the regions. Each indicium of the data element indicia is displayed in a region of the plurality of regions according to the corresponding data type.

In contradistinction, Gentile fails to teach, suggest or disclose executable instructions that when executed by a processor display region indicia representative of a plurality of regions as disclosed by Claim 24. As previously

discussed, Gentile does not teach, suggest or disclose the display of any region indicia representative of a region. Gentile also does not teach, suggest or disclose executable instructions that when executed by a processor display data element indicia representative of a plurality of data elements as disclosed by Claim 24. As previously discussed, Gentile does not teach, suggest or disclose data element indicia at all.

Accordingly, for at least the foregoing reasons, independent Claim 24 is patentably distinct over Gentile. Applicants therefore respectfully request the Examiner to withdraw the 35 U.S.C. 102(b) rejection of Claim 24.

The 35 U.S.C. 103(a) Claim Rejections

Claims 2, 3, 25 and 30 stand rejected pursuant to 35 U.S.C. §103(a) as being obvious in view of Gentile and further in view of U.S. Patent No. 5,768,578 to Kirk et al. (hereinafter "Kirk"). In addition, Claims 4, 5 and 26 are rejected pursuant to 35 U.S.C. §103(a) as being obvious in view of the combination of Gentile, Kirk and U.S. Patent No. 5,276,805 to Hamaguchi (hereinafter "Hamaguchi"). Further, Claims 6, 7 and 27 stand rejected pursuant to 35 U.S.C. §103(a) as being obvious in view of the combination of Gentile and U.S. Patent No. 5,499,334 to Staab (hereinafter "Staab"). Claims 8-11 and 26-29 stand rejected pursuant to 35 U.S.C. §103(a) as being obvious in view of the combination of Gentile and U.S. Patent No. 5,619,632 to Lamping et al. (hereinafter "Lamping"). Applicants respectfully traverse these rejections for at least the following reasons.

As previously discussed, Gentile fails to teach, suggest or disclose all the features recited in independent Claims 1 and 24. Accordingly, all of the claim features disclosed by respective dependent Claims 2-11 and 25-30 are not taught or suggested by the cited combinations of the prior art. Thus, a *prima facie* case of obviousness has not been established with regard to Claims 2-11 and 25-30.

A. Claims 2-3

Applicants also traverse the rejection of Claims 2-3. Claim 2 discloses relationship indicia that are representative of a plurality of relationships. Claim

3 discloses that the relationship indicia comprise at least one relationship indicia that is representative of a confirmed relationship between related data elements. In contradistinction, in Fig. 6, Kirk teaches a knowledge based browser displaying nodes 612 with edges 614 representing relationships between the nodes 612, and in Fig. 8 Kirk teaches a path history browser 800 displaying nodes 802 with edges 804 representing hypertext links therebetween. If the edges 614 of Fig. 6 are displayed as relationship indicia as was asserted in the office action mailed March 19, 2004, the edges do not comprise at least one relationship indicia representative of a confirmed relationship as recited in Claim 3. Clearly, the edges 804 of Fig. 8 are displayed in a completely different browser than the edges 614 of Fig. 6 and therefore the edges 614 of Fig. 6 could not possibly comprise the edges 804 as asserted in the rejection of Claim 3. Accordingly, for at least the foregoing reasons the combination of Gentile and Kirk fail to teach, suggest or disclose all the features recited in dependent Claim 3 and therefore a *prima facie* case of obviousness has not been established.

B. Claims 4, 5 and 26

With regard to Claims 4, 5 and 26, Applicants also respectfully traverse these rejections. Claim 4 discloses that the relationship indicia comprise at least one relationship indicia representative of a potential relationship between potentially related data elements. As disclosed in Claim 2, from which Claim 4 depends, the relationship indicia are representative of a plurality of relationships.

Hamaguchi on the other hand, teaches displaying retrieved data, not relationship indicia, that correspond to a patients name and an imaged region so that an operator can determine whether a relationship exists. Not only does Hamaguchi not teach, suggest or disclose relationship indicia, but also fails to teach, suggest or disclose that the relationship indicia comprise at least one relationship indicium representative of a potential relationship. In fact, Hamaguchi simply displays data without any indicium that a potential relationship exists. Further, Hamaguchi fails to teach, suggest or disclose conversion of at least one relationship indicium to a relationship indicium representative of a confirmed relationship as disclosed in Claims 5 and 26. In

fact, Hamaguchi fails to teach any form of indicium that is converted from being representative of a potential relationship to being representative of a confirmed relationship, and instead simply displays link information for the first time once a user confirms a relationship. Accordingly, for at least the foregoing reasons, the combination of Gentile, Kirk and Hamaguchi fail to teach, suggest or disclose all the features recited in dependent Claims 4, 5 and 26, and therefore a *prima facie* case of obviousness has not been established.

C. Claims 8-11 and 28-29

Claim 8 describes displaying a first indicium of a data element as a focus indicium. Claim 28 discloses display of a first indicium as a focus indicium and display of relationship indicia representative of a plurality of relationships relative to the first indicium. Claims 10 and 29 disclose receipt of a selection indication representative of a selection of a second indicium as the focus indicium, display of the region indicia based on the second indicium and display of the relationship indicia relative to the second indicium. Claim 11 discloses displaying the second indicium in a central region. In contradistinction, Lamping teaches presenting a series of representations by moving nodes in a display so that the nodes can be perceived at animation speeds to produce a perception of continuous motion. (Col. 3 lines 36-41)

In the portion of Lamping identified by the office action mailed March 19, 2004, Lamping teaches how problems related to preserving orientation are alleviated by interpreting a user's navigation around the displayed node-link structure. Lamping fails to teach, suggest or disclose display of a first indicium as a focus indicium and receipt of selection of a second indicium to be the focus indicium as recited in Claims 10 and 29. In fact, Fig. 20 of Lamping simply illustrates how the nodes are rotated as the user navigates. The office action mailed March 19, 2004 asserts the user manipulations can select a second focus indicium, however, Lamping clearly teaches in Fig. 20 how the nodes are re-displayed as the user navigates and makes no mention of a first indicium that is a focus indicium and selection of a second indicium to be the focus indicium as disclosed in Claims 10 and 29. Clearly, navigation within a display is not equivalent to the selection of a second indicium as a focus indicium as recited in

Claims 10 and 29. Thus, for at least the foregoing reasons, the combination of Gentile and Lamping fail to teach, suggest or disclose all the features recited in dependent Claims 8-11 and 28-29, and therefore a *prima facie* case of obviousness has not been established.

Based at least on the foregoing reasons, Applicants respectfully request the Examiner to withdraw the 35 U.S.C. 103(a) rejection of Claims 2-11 and 25-30.

The application is believed to now be in condition for allowance, which is respectfully requested. Should the Examiner deem a telephone conference to be beneficial in expediting allowance of this application, the Examiner is invited to call the undersigned attorney at the telephone number listed below. No fees are believed required at this time. However, should any fees be deemed necessary, please charge such fees to Deposit Account No. 23-1925.

Respectfully Submitted,



Sanders N. Hillis
Attorney Reg. No. 45,712
Attorney for the Applicant

SNH/bal

BRINKS HOFER GILSON & LIONE
One Indiana Square, Suite 1600
Indianapolis, Indiana 46204
Telephone: 317-636-0886
Facsimile: 317-634-6701